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COVID-19 behind thousands of excess US deaths, analysis shows

Stephanie Soucheray, MA, *February 7, 2024*

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A **new study** from researchers at Boston University School of Public Health and the University of Pennsylvania shows that a substantial proportion of excess mortality numbers counted as deaths from natural causes during the COVID-19 pandemic were actually attributable to the novel coronavirus.

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The study appears in the journal *Proceedings of the National Academy of Sciences.*

According to the Centers for Disease Control and Prevention, **1,174,626 Americans have died** due to COVID-19 since the start of the pandemic nearly 4 years ago. But excess mortality —deaths that would not be expected compared to other years —has also risen, suggesting COVID-19 has a role in those deaths, as well.

While other assessments of excess US mortality rates during the pandemic have looked at interruptions or delays in medical care and lockdowns, this study associates the excess deaths temporally with local increases in COVID-19 activity.

Excess deaths match COVID-19 peaks

The study was based on natural-cause deaths and reported COVID-19 deaths for 3,127 US counties from March 2020 to August 2022. The researchers focused on excess deaths attributed only to natural causes, not excess deaths attributed to intentional or unintentional injuries or to accidents.

"We observed peaks in non-COVID-19 excess deaths in the same or prior month as COVID-19 deaths, a pattern consistent with these being unrecognized COVID-19 deaths that were missed due to low community awareness and a lack of COVID-19 testing," said corresponding author Andrew Stokes, PhD, in **a Boston University press release**.

> **We observed peaks in non-COVID-19 excess deaths in the same or prior month as COVID-19 deaths.**

If delays and disruption in care were the primary cause of the excess mortality, then those deaths would have followed peaks in COVID activity, the authors explained.

High rates in nonmetropolitan counties

Overall, 15.8 excess deaths were reported due to non–COVID-19 natural caus

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COVID-19 deaths across the study period. A total of 1,194,610 excess natural-cause deaths occurred nationally (90% posterior interval [PI], 1,046,000 to 1,340,204).

A total of 162,886 of these excess natural-cause deaths (90% PI, 14,276 to 308,480) were not reported as COVID-19.

The authors found significant regional patterns in these excess deaths: Nonmetropolitan counties reported the most natural-cause deaths for every 100 COVID deaths (36.0), as did counties in the West (Rocky Mountain states, 31.6 deaths; Pacific states, 25.5 deaths), and the South (East South Central states, 26.0 deaths; South Atlantic states, 25.0 deaths; West South Central states, 24.2 deaths).

"Contrary to prior literature which indicated that these gaps were mostly limited to the early months of the pandemic, we found nearly as many excess deaths reported to non-COVID-19 natural causes in the pandemic's second year as the first year," the authors concluded.

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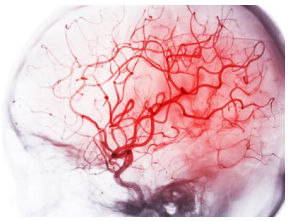

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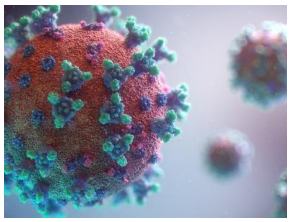

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